

Notice of Allowability

Application No.

10/822,327

Examiner

Mehdi Rashidian

Applicant(s)

SHANAHAN ET AL.

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on April 12, 2004.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 12/20/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicant's attorney (Mr. Douglas H. Pearson with registration # 47/851) on December 4, 2007 without traverse.

2. In claim 1, line 9, after computes insert --- a ---; after score, insert --- which is ---; and line 10, after learnt delete "model, and classifies", insert --- model; and ---; and line 11, before the document, insert --- classifying ---; and after on, delete "the sign of" and after $\text{Class}(X) = \text{Sign}(\text{score} - \theta_{\text{new}})$, insert --- wherein θ_{new} is said threshold value, score is said value assigned to the document by the learnt model. Sign is a function that returns a sign value based upon a value of score minus θ_{new} , and $\text{Class}(X)$ is a classification of the document assigned by the Sign function. ---.

3. In claim 7, line 4, after computer insert --- is configured to execute steps comprising: ---; and line 12, after computes insert --- a ---; after score, insert --- which is ---; and line 13, after learnt delete "model, and classifies", insert ---

Art Unit: 2624

model; and ---; and line 14, before the document, insert --- classifying ---; and after the, delete “sign of the” and after $\text{Class}(X) = \text{Sign}(\text{score} - \theta_{\text{new}})$, insert --- wherein θ_{new} is said threshold value, score is said value assigned to the document by the learnt model. Sign is a function that returns a sign value based upon a value of score minus θ_{new} , and $\text{Class}(X)$ is a classification of the document assigned by the Sign function. ---.

4. In claim 13, line 10, after computes insert --- a ---; after score, insert --- which is ---; and line 11, after learnt delete “model, and classifies”, insert --- model; and ---; and line 12, before the document, insert --- classifying ---; and after on, delete “the sign of” and after $\text{Class}(X) = \text{Sign}(\text{score} - \theta_{\text{new}})$, insert --- wherein θ_{new} is said threshold value, score is said value assigned to the document by the learnt model. Sign is a function that returns a sign value based upon a value of score minus θ_{new} , and $\text{Class}(X)$ is a classification of the document assigned by the Sign function. ---.

Drawings

5. The drawings were received on April 12, 2004. These drawings are accepted by Examiner.

Reasons for Allowance

6. The following is an examiner's statement of reasons for allowance:

The prior art of the record fails to teach or suggest method and apparatus for adjusting the model threshold of a support vector machine for text classification and filtering comprises classifying the document based on the following equation:

$$\text{Class}(X) = \text{Sign}(\text{score} - \theta_{\text{new}})$$

wherein θ_{new} is said threshold value, score is said value assigned to the document by the learnt model. Sign is a function that returns a sign value based upon a value of score minus θ_{new} , and Class(X) is a classification of the document assigned by the Sign function,

in combination into other features and elements of claims 1, 7 and 13.

7. **Claims 1-18 are allowed.**

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other Prior Art

9. The prior art made of record and not relied upon pertinent to applicant's

Disclosure:

Caid et al. (US Patent 5,619,709) discloses System and Method of Context Vector Generation and Retrieval.

Evans (US Patent 6,377,947) Discloses Information Retrieval Based on Using and Locating Subdocuments.

Evans (US Patent 5,907,840) discloses Overlapping Subdocuments in a Vector Search Process.

Guedalia et al. (US Patent 6,535,878) discloses Method and System for Providing On-Line Interactivity Over a Server-Client Network.

Zhai (US Patent 6,587,850) discloses Method and Apparatus for Profile Score Threshold Setting and Updating.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehdi Rashidian whose telephone number is (571) 272-9763. The examiner can normally be reached on Mon -Thurs 9:00 AM to 8:00 PM, ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571) 272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/822,327
Art Unit: 2624

Page 6

Mehdi Rashidian

01/03/2008



SAMIR AHMED
SUPERVISORY PATENT EXAMINER